

In the Claims:

Please amend the claims as follows.

The following lists all claims and their status:

1-49 (cancelled)

50. (previously presented): A method for forming a sensor array configured to detect multiple analytes in a fluid, comprising:

forming a plurality of sensing elements having a predetermined shape, wherein a first portion of the sensing elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of the second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of sensing elements is different from the shape of the second portion of sensing elements;

placing the sensing elements in a liquid composition; and

curing the liquid composition to form a supporting member, wherein the sensing elements are at least partially embedded within the cured liquid composition.

51-75 (cancelled)

76. (previously presented): A method of sensing multiple analytes in a fluid comprising:

passing a fluid over a sensor array, the sensor array comprising a plurality of sensing elements coupled to a supporting member, wherein a first portion of the sensing

elements are configured to produce a signal in the presence of a first analyte and wherein a second portion of the sensing elements are configured to produce a signal in the presence of a second analyte, and wherein the first and second portions of the sensing elements have predetermined shapes, and wherein the shape of the first portion of sensing elements is different from the shape of the second portion of sensing elements;

monitoring a spectroscopic change of the sensing elements as the fluid is passed over the sensor array, wherein the spectroscopic change is caused by the interaction of the analyte with the sensing element; and

determining the shape of the sensing elements that undergo a spectroscopic change.

77-97 (cancelled)

98. (new) The method of claim 50, wherein forming a sensing element comprises polymerizing a monomer composition.

99. (new) The method of claim 50, wherein placing the sensing element in a liquid composition comprises placing the sensing elements at the surface of the liquid composition.

100. (new) The method of claim 50 wherein the sensing element comprises a polymer.

101. (new) The method of claim 50 wherein the sensing element comprises a polyethylene glycol hydrogel.

102. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.

103. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a non-spherical shape.

104. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol polymer.

105. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol diacrylate.

106. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is coupled to an outer surface of the polymeric body.

107. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body.

108. (new) The method of claim 50 wherein forming the sensing element comprises coupling a receptor to a polymeric body, and wherein the receptor comprises a nucleic acid.

109. (new) The method of claim 76 wherein the sensing element comprises a polymer.

110. (new) The method of claim 76 wherein the sensing element comprises a polyethylene glycol hydrogel.

111. (new) The method of claim 76 wherein the sensing element comprises a receptor, and

wherein the receptor is configured to produce a signal when the sensing element interacts with the analyte during use.

112. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body.

113. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a non-spherical shape.

114. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol polymer.

115. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the polymeric body comprises a polyethylene glycol diacrylate.

116. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor is coupled to an outer surface of the polymeric body.

117. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor is at least partially encapsulated within the polymeric body.

118. (new) The method of claim 76, wherein the sensing element comprises a receptor coupled to a polymeric body, and wherein the receptor comprises a nucleic acid.